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IDENTIFIERS	*Technology Student Association

ABSTRACT

This packet of learning activities on the Technology Student Association for students in grades 6-10 contains an instructor's section and student design briefs. The instructor's section has the following contents: background information; suggested activities; a list of suggested resources; supplemental activities; pretest; posttest; test answers; and a bibliography. Topics include the Technology Student Association and its activities, its competitive events, local chapter, state and national events, and personal interests. The design briefs in the student section provide activities for four objectives related to interest in Technology Student Association activities. The materials consist of the following: a summary of activities; list of all assignments; goal; list of objectives; information sheet(s); vocabulary with definitions; and objective with list of tools and materials; challenge; and evaluation. (YLB)

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Technology Learning Activity

ED 380 605

Technology Education Series

TSA LEADERSHIP

TLA TE-1108

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CIMC

Teacher Edition

Oklahoma Department of
Vocational and Technical Education
1500 West Seventh Avenue
Stillwater, OK 74074-4364

TECHNOLOGY EDUCATION

TSA LEADERSHIP DESIGN BRIEFS

TE1108

INSTRUCTOR'S SECTION

Developed by the
Curriculum and Instructional Materials Center
for the Technology Education Division
Oklahoma Department of Vocational and Technical Education

94-010124

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Curriculum and Instructional Materials Center

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FOREWORD

What will be the careers of the future? The workforce of tomorrow will be shaped by the technologies being developed today. Students today need accurate, interesting information on growing technologies in order to make informed decisions about their futures.

It is our hope that this curriculum will help improve the quality of career decisions for our students. Students are introduced to a wide range of current, "cutting-edge" technologies and are encouraged to think critically about how those technologies influence their lives and futures. Today's students do not have to become the victims of "technological illiteracy," but instead can learn to anticipate technological developments and take positive steps to prepare for the future.

Technology Learning Activities and Design Briefs provide students with the knowledge and an introduction to the skills they need for a positive learning and career experience. Every generation is faced with learning how to manage technological advances. Information gained through participation in the *Technology Education* program can help students develop a holistic view of technology on which to base their educational and career decisions.

Roy Peters, Jr., Ed.D., State Director
Oklahoma Department of
Vocational and Technical Education

Lynn Hawkins, State Supervisor
Technology Education
Oklahoma Department of
Vocational and Technical Education

PREFACE

We believe that one of the most effective ways to improve education is through the development and implementation of a sound instructional materials system. Technology Education instructional materials represent a new design for CIMC which recognizes the importance of graphic materials in the learning process.

Technology Education instructional materials are designed for 6th through 10th grade students. The design of these materials is based on current research on how people read and gain information from documents. The design is called "New Look" and integrates both graphics and text into a balanced presentation which is easy to use and follow. This publication also uses the design brief format, in which some activities provide students with challenges instead of step-by-step instructions.

Technology Education provides the student a look at what the world will be like in the future based on technologies in use and being developed today. Throughout the Technology Education instructional materials, the students are introduced to "cutting-edge" technologies that they will use and encounter in a working environment later in life. This exposure gives them a wide range of experiences on which to base career decisions.

This publication is intended as a starting point, from which the teacher can innovate, localize, and personalize in order to prepare students for their future. The *Technology Education* series of Technology Learning Activities and Design Briefs was written with the realization that we are creating the workforce of tomorrow by how and what we teach about technology today.

Sherry Wietelman, M.S., Curriculum Development Specialist
Curriculum and Instructional Materials Center

ACKNOWLEDGEMENTS

The Curriculum and Instructional Materials Center (CIMC) extends its appreciation to those individuals who played important roles in the development of Technology Learning Activity materials.

We also thank the State Director, Dr. Roy Peters, Jr., and the Assistant State Director, Dr. Charles O. Hopkins, for their continued support throughout this project.

Oklahoma Department of Vocational and Technical Education Technology Education staff who provided leadership and direction on this project also deserve special recognition.

Lynn Hawkins
State Supervisor
Technology Education

Donovan Bowers
Assistant State Supervisor
Technology Education

Harold Holley
Assistant State Supervisor
Technology Education

Special recognition and thanks are expressed to Beth Ann Fulgenzi, who wrote, formatted, and produced the camera ready copy for this design brief.

Only through the close cooperation of the Curriculum and Instructional Materials Center staff was this curriculum developed. Sincere thanks are shared with the CIMC coordinators.

John Friedemann
CIMC Coordinator

Lynna Ausburn, Ph.D.
CIMC Development Coordinator

Special recognition and thanks are also extended to other individuals within the Oklahoma Department of Vocational and Technical Education (ODVTE) involved in the development and distribution process: Danny Darrow, Diane Ensign and their staffs at the ODVTE Print Shop; Bob Davis and staff artist Kathryn Moore for the cover design; Darrel Stiles and his staff in the ODVTE Warehouse for packaging and coordinating transportation and distribution of these materials; and the CIMC Word Processing team of Brenna Tillman and Charlotte Tarkington.

Finally, a big thank you to all ODVTE team members who offer their support on a daily basis in "behind-the-scenes" ways but never seem to be recognized for their contributions: Suzanne Perry and Terri Tomson, CIMC secretaries; Shirley Hill and Michelle Hensiek, Technology Education secretaries.

Sherry Wietelman, M.S.
Curriculum Development Specialist
Curriculum and Instructional Materials Center
Oklahoma Department of Vocational and Technical Education

BACKGROUND INFORMATION

The Technology Student Association (TSA) is a national organization for students who are presently enrolled in, or have completed, technology education classes.

Technology education classes have a two-fold mission.

- To help students gain an understanding of all aspects of technology and industry.
- To assist in the development of individual potential.

TSA fosters this mission by developing leadership abilities and instilling a sense of pride in one's work.

TSA also promotes high standards of technical ability, scholarship, and safety.

TSA is an organization that values the unique capabilities of students and offers many opportunities for personal growth and success.

TSA has activities at the local, state, and national level.

INSTRUCTOR'S SECTION

SUGGESTED ACTIVITIES

- ✓ Obtain materials to supplement Design Brief.

  NOTE: See Suggested Resources for resources to supplement this module.

- ✓ Study the specific objectives to determine those you will cover.

- ✓ Review supplemental activities to determine those you will use.

- ✓ Determine scope and sequence of objectives that you add to the Design Brief. Design and develop support materials, including evaluation techniques, for additional objectives.

INSTRUCTOR'S SECTION

PREPARATION

SUGGESTED RESOURCES

INSTRUCTOR'S SECTION

PUBLICATIONS

Technology Student Association: Chapter Handbook. Reston, Virginia: Technology Student Association, 1989.

Technology Student Association: Officer Handbook. Reston, Virginia: Technology Student Association, 1991.

Technology Student Association: Technology Teacher's Guide. Reston, Virginia: Technology Student Association, 1989.

Technology Student Association: 1992-94 Curricular Resources Guide. Reston, Virginia: Technology Student Association, 1992.

Learn, Grow, Become: TSA Edition. Stillwater, Oklahoma: Oklahoma Department of Vocational and Technical Education, 1991.

AUDIOVISUAL MATERIALS

TSA Video (VHS, 1993). Introduces students to the Technology Student Association by showing what TSA has to offer students. Available from the Oklahoma Department of Vocational and Technical Education, 1500 West Seventh Avenue, Stillwater, Oklahoma 74074.

SUPPLEMENTAL ACTIVITIES

INSTRUCTOR'S SECTION

RESOURCES

- TSA Video
- TSA Design Brief

TOOLS AND MATERIALS

- Pencil
- Crossword puzzle form

CHALLENGE

Complete a Technology Student Association crossword puzzle.

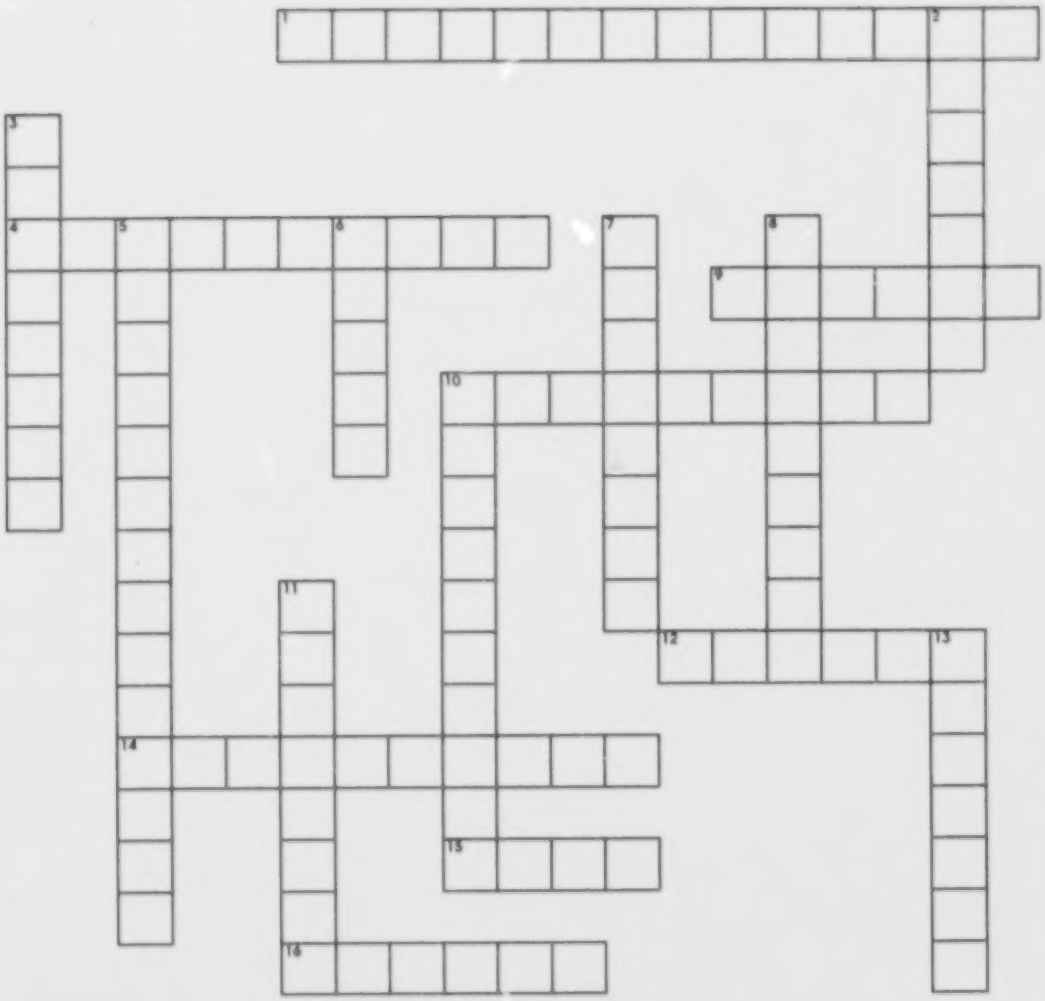
EVALUATION

Crossword puzzle should be filled in completely and accurately.

SUPPLEMENTAL ACTIVITIES

INSTRUCTOR'S SECTION

TSA CROSSWORD PUZZLE



CLUES

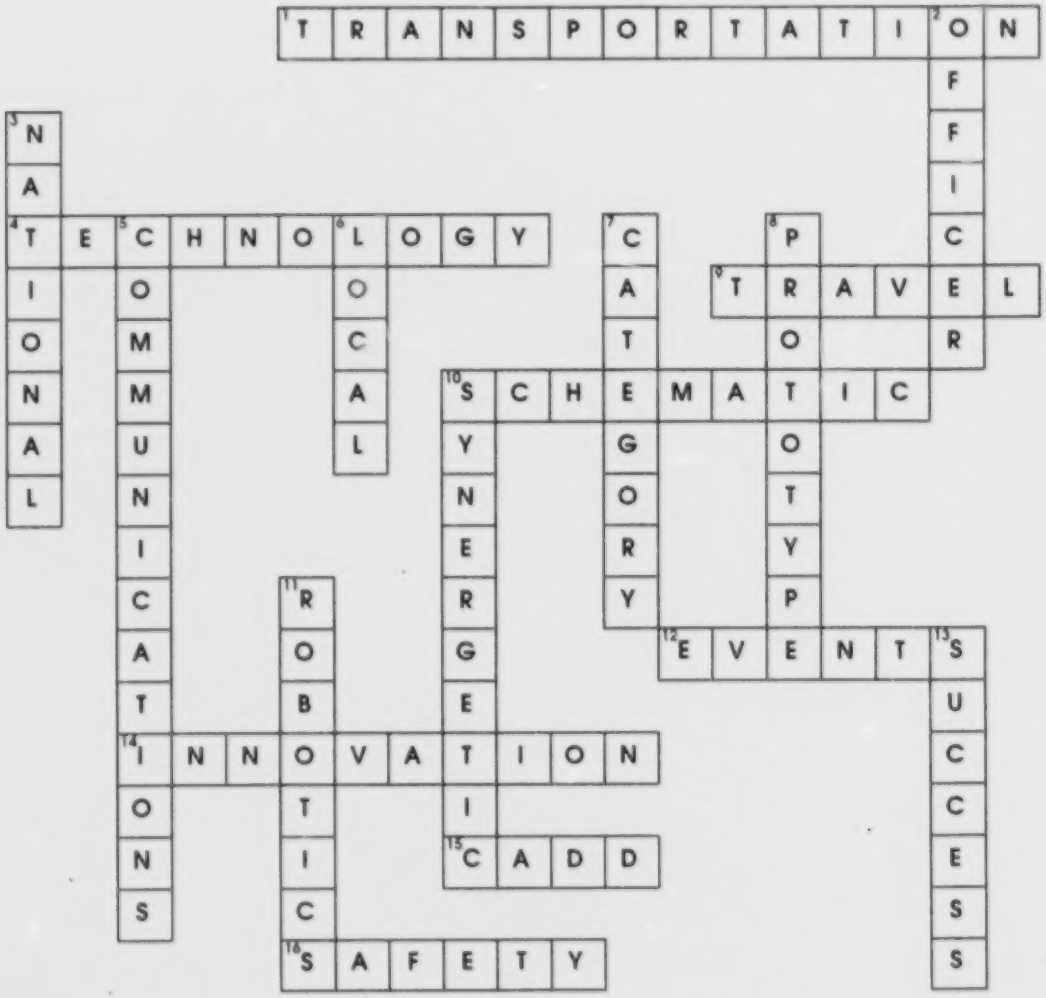
Across

1. Cars, planes and ships are examples of _____
4. _____ Student Association
9. Visiting places
10. A drawing
12. Competitive _____
14. Something new or different
15. Computer-aided design and drafting
16. TSA promotes _____

Down

2. A person in a leadership position
5. Relaying information
6. _____ TSA Chapters may be involved in community service
7. A group of related items
8. A working model
10. Working together
11. Technology that uses computer-controlled robots to perform specific jobs

TSA CROSSWORD PUZZLE ANSWERS



SUPPLEMENTAL ACTIVITIES

INSTRUCTOR'S SECTION

RESOURCES

- TSA Video
- TSA Design Brief

TOOLS AND MATERIALS

- Pencil or pen
- Word search form

CHALLENGE

Complete a word search activity over terms related to Technology Student Association activities.

EVALUATION

All of the words should be circled in the word search form.

TSA WORD SEARCH

H H D N P I H S R E D A E L F P J W M E
R T P U C E V F Y B B U J M D D G E B S
L N E O F A M T T K X T C Q S R A L K H
Z A U X S K R T H J L Y D Q O J C E C L
Y O N M C Z F E J K H N D W N Z O X R L
Y S B O T I S M E F E F T I U B N T U I
Z T U R I X T W K R R H D Y U S K A E E
N K I C H T Q E W T S I M E X J I T U F
L G W N P J A C M K N W E P Y N S I W G
G E J A U T V N H E H E S N K A V T L C
K E I S I T U D S A N P M Y D G Y C Z Q
P X R O G W R T B L L T T E G S J K N H
P F C U X C A O Q X G L Y W V L M U V J
F I E K T T D Q P C M F E S N E E Z M A
L H R T E N X V E P C E A N L D I J E Z
W P U S D G E A V U O U M A G I L H O U
O F T F J O I V N L O B C B O E F Z C Y
Z V U K U Z G E D S A O I S E C C H K A
O I F H V I J K V A L K S R K R Y Q N F
P T L X H R X H J A H Z T P P G N U W C

Find these hidden words in the puzzle:

achievement
careers
excitement
future
leadership
member
opportunity
TSA
adventure
challenge
friends
growth
local
national
state

TSA WORD SEARCH ANSWERS

```
. . . . P I H S R E D A E L . . . . . .
. . . . C . . . . . . . . . . G . . .
L . E . . A . . . . . . . . . R . . .
. A . X . . R . . . . . . . O . . . . .
. . N . C . . E . . . . . W . . . . . .
Y . . O . I . . E F . . T . . . . . . .
. T . . I . T . . R R H . . . . . . . .
. . I . . T . E . T S I . . . . . T . .
. . . N . . A C M . N . E . . . S . . .
. . . . U . . N H E . E . N . A . . . .
. E . . . T . . S A N . M . D . . . . .
. . R . . . R T . . L T . E . S . . . .
. . . U . . A O . . . L . . V . . . . .
. . E . T T . . P . M . E . . E . . . .
. . R . E N . . . P . E . N L . I . . .
. . U . . . E . . . O . M A G . . H . .
. . T . . . . V . . . . C B . E . . C .
. . U . . . . . D . . O . . E . . . . A
. . F . . . . . . A L . . . . R . . . .
. . . . . . . . . . . . . . . . . . . .
```

SUPPLEMENTAL ACTIVITIES

INSTRUCTOR'S SECTION

- None required

RESOURCES

- Pencil or pen
- Self-concept terms and questions

TOOLS AND MATERIALS

Complete a self-concept activity by selecting traits and answering short questions.

CHALLENGE

Self-concept activities will be evaluated on their neatness and completeness.

EVALUATION

SUPPLEMENTAL ACTIVITIES

Below you will find 75 personality traits. Try to select the 20 traits that describe you best and circle them.

sincere	sloppy	short-tempered
suspicious	nervous	compulsive
cooperative	skeptical	impolite
cheerful	efficient	idealistic
crafty	prejudiced	warm
ethical	respectful	dependable
persuasive	vain	considerate
studious	optimistic	good-humored
courageous	punctual	sarcastic
shy	tactful	unselfish
diligent	energetic	boastful
prideful	wholesome	imaginative
candid	generous	sociable
reliable	courteous	open-minded
orderly	tense	scornful
kind	logical	forgetful
reasonable	methodical	headstrong
pessimistic	sly	clumsy
patient	grouchy	rebellious
gracious	neat	understanding
honest	truthful	mature
naive	resourceful	friendly
versatile	modest	smart
cordial	daring	

Review the 20 traits you chose. Overall, is it a favorable or unfavorable picture that you have sketched? Look at your list again, this time remembering that we often distort what we see. Is the person in your list really you? Answer the questions on the next page.

INSTRUCTOR'S SECTION

SELF-CONCEPT

SUPPLEMENTAL ACTIVITIES

1. What characteristics make you unique?

_____

_____

_____

_____

2. What are your greatest strengths?

_____

_____

_____

3. What are your greatest weaknesses?

_____

_____

_____

_____

INSTRUCTOR'S SECTION

SELF-CONCEPT
Continued

SUPPLEMENTAL ACTIVITIES

- None required

INSTRUCTOR'S SECTION

RESOURCES

TOOLS AND MATERIALS

- Pencil or pen
- Personal evaluation self-rating scale and partner rating evaluation scale.

CHALLENGE

Complete a personal self-rating scale and have a partner complete the scale.

EVALUATION

Personal self-rating scales will be evaluated on their neatness and completeness.

SUPPLEMENTAL ACTIVITIES

It is important not only to be your best self, but to project a truthful image of your best self.

Rate yourself on the following scale and then have someone else *rate you as they see you* on the second copy of the scale.

A "5" on the scale would mean that you greatly project this quality. A "1" on the scale would mean you have very little of this quality.

Look up the meaning of words you don't understand.

INSTRUCTOR'S SECTION

SELF-RATING SCALE

Your Copy

Characteristics	Rating
Sense of humor	5 4 3 2 1
Poised	5 4 3 2 1
Systematic	5 4 3 2 1
Courteous	5 4 3 2 1
Cooperative	5 4 3 2 1
Apathetic	5 4 3 2 1
Easily impressed	5 4 3 2 1
Pays attention	5 4 3 2 1
Determined	5 4 3 2 1
Extroverted	5 4 3 2 1
Practical	5 4 3 2 1
Creative	5 4 3 2 1
Patient	5 4 3 2 1
Alert	5 4 3 2 1
Perfectionist	5 4 3 2 1
Pessimistic	5 4 3 2 1
Logical; reasonable	5 4 3 2 1
Leadership qualities	5 4 3 2 1
Impulsive	5 4 3 2 1
Sensible	5 4 3 2 1
Generous	5 4 3 2 1
Sociable	5 4 3 2 1
Tactful	5 4 3 2 1
Rude	5 4 3 2 1
Deceitful	5 4 3 2 1
Considerate	5 4 3 2 1
Sincere	5 4 3 2 1
Forgetful	5 4 3 2 1
Kind	5 4 3 2 1
Inhibited	5 4 3 2 1
Restless	5 4 3 2 1
Possessive	5 4 3 2 1
Irritable	5 4 3 2 1
Loyal	5 4 3 2 1
Selfish	5 4 3 2 1
Thoughtful	5 4 3 2 1

SUPPLEMENTAL ACTIVITIES

INSTRUCTOR'S SECTION

Characteristics	Rating				
Independent; self-governing	5	4	3	2	1
Emotionally mature	5	4	3	2	1
Self-controlled	5	4	3	2	1
Obeys rules	5	4	3	2	1
Perseverant	5	4	3	2	1
Economical	5	4	3	2	1
Jealous	5	4	3	2	1
Naive	5	4	3	2	1
Dependable	5	4	3	2	1
Stubborn	5	4	3	2	1
Critical	5	4	3	2	1
Optimistic	5	4	3	2	1
Easily dressed	5	4	3	2	1
Friendly	5	4	3	2	1
Positive	5	4	3	2	1
Ambitious	5	4	3	2	1
Conceited	5	4	3	2	1
Good-natured	5	4	3	2	1
Honest	5	4	3	2	1
Sarcastic	5	4	3	2	1
Inferiority complex	5	4	3	2	1
Enthusiastic	5	4	3	2	1
Resourceful	5	4	3	2	1
Intellectual	5	4	3	2	1
Suspicious	5	4	3	2	1
Shrewd	5	4	3	2	1
Sympathetic	5	4	3	2	1
Emotional	5	4	3	2	1
Self-conscious	5	4	3	2	1
Domineering	5	4	3	2	1
Argumentative	5	4	3	2	1
Broadminded	5	4	3	2	1
Efficient	5	4	3	2	1
Introverted	5	4	3	2	1
Modest, humble	5	4	3	2	1

SUPPLEMENTAL ACTIVITIES

INSTRUCTOR'S SECTION

Your Partner's Copy

Characteristics	Rating				
Sense of humor	5	4	3	2	1
Poised	5	4	3	2	1
Systematic	5	4	3	2	1
Courteous	5	4	3	2	1
Cooperative	5	4	3	2	1
Apathetic	5	4	3	2	1
Easily impressed	5	4	3	2	1
Pays attention	5	4	3	2	1
Determined	5	4	3	2	1
Extroverted	5	4	3	2	1
Practical	5	4	3	2	1
Creative	5	4	3	2	1
Patient	5	4	3	2	1
Alert	5	4	3	2	1
Perfectionist	5	4	3	2	1
Pessimistic	5	4	3	2	1
Logical; reasonable	5	4	3	2	1
Leadership qualities	5	4	3	2	1
Impulsive	5	4	3	2	1
Sensible	5	4	3	2	1
Generous	5	4	3	2	1
Sociable	5	4	3	2	1
Tactful	5	4	3	2	1
Rude	5	4	3	2	1
Deceitful	5	4	3	2	1
Considerate	5	4	3	2	1
Sincere	5	4	3	2	1
Forgetful	5	4	3	2	1
Kind	5	4	3	2	1
Inhibited	5	4	3	2	1
Restless	5	4	3	2	1
Possessive	5	4	3	2	1
Irritable	5	4	3	2	1
Loyal	5	4	3	2	1
Selfish	5	4	3	2	1
Thoughtful	5	4	3	2	1

SUPPLEMENTAL ACTIVITIES

INSTRUCTOR'S SECTION

Characteristics	Rating				
Independent; self-governing	5	4	3	2	1
Emotionally mature	5	4	3	2	1
Self-controlled	5	4	3	2	1
Obeys rules	5	4	3	2	1
Perseverant	5	4	3	2	1
Economical	5	4	3	2	1
Jealous	5	4	3	2	1
Naive	5	4	3	2	1
Dependable	5	4	3	2	1
Stubborn	5	4	3	2	1
Critical	5	4	3	2	1
Optimistic	5	4	3	2	1
Easily dressed	5	4	3	2	1
Friendly	5	4	3	2	1
Positive	5	4	3	2	1
Ambitious	5	4	3	2	1
Conceited	5	4	3	2	1
Good-natured	5	4	3	2	1
Honest	5	4	3	2	1
Sarcastic	5	4	3	2	1
Inferiority complex	5	4	3	2	1
Enthusiastic	5	4	3	2	1
Resourceful	5	4	3	2	1
Intellectual	5	4	3	2	1
Suspicious	5	4	3	2	1
Shrewd	5	4	3	2	1
Sympathetic	5	4	3	2	1
Emotional	5	4	3	2	1
Self-conscious	5	4	3	2	1
Domineering	5	4	3	2	1
Argumentative	5	4	3	2	1
Broadminded	5	4	3	2	1
Efficient	5	4	3	2	1
Introverted	5	4	3	2	1
Modest, humble	5	4	3	2	1

SUPPLEMENTAL ACTIVITIES

- None required

INSTRUCTOR'S SECTION

RESOURCES

TOOLS AND MATERIALS

- Pencil or pen
- Self-analysis worksheet

CHALLENGE

Complete a self-analysis worksheet by answering questions about yourself.

EVALUATION

Self-analysis worksheets will be evaluated on their neatness and completeness.

SUPPLEMENTAL ACTIVITIES

INSTRUCTOR'S SECTION

	Never	Sometimes	Always
1. Are you able to act naturally under all circumstances?			
2. Do you avoid criticizing others?			
3. Are you able to give credit to others for what they do?			
4. Do you approach your work confidently?			
5. Do you expect to succeed?			
6. Do you finish the things you start?			
7. Do you feel that limitations are things you put on yourself?			
8. Do you try to learn as much as you can?			
9. Do you work to be free from superstitions and prejudices?			
10. Do you listen attentively to what people say without interrupting them?			
11. Can you be depended upon to keep your promises?			
12. Do you try to achieve one goal at a time?			
13. Do you control your temper?			
14. Do you often feel enthusiastic about something you wish to do?			
15. Are you able to make decisions about everyday things easily?			
16. Are you able to interest yourself in the details of work you do?			
17. Are you careful not to hold grudges?			
18. Are you able to work well with others?			
19. Do you avoid gossiping about others?			
20. Do you avoid arguments?			

SUPPLEMENTAL ACTIVITIES

INSTRUCTOR'S SECTION

	Never	Sometimes	Always
21. Do you avoid making fun of others?			
22. Do you keep out of other people's business?			
23. Do you avoid finding fault with everyday little things?			
24. Do you enjoy your school work?			
25. Do you remember others on special occasions such as birthdays?			
26. Do you learn, remember, and use the names of people you meet?			
27. Do your friends try to operate at their best potential?			
28. Do you smile often?			
29. Do you really know that you are a unique and valuable person?			
30. Do you think of exciting possibilities in your future?			
31. Do you feel that you are mature in your attitudes, outlook, and actions?			
32. Do you try to plan your time wisely?			
33. Do you refrain from exaggeration?			
34. Do you avoid flattering people for personal gain?			
35. Do you return what you borrow to its proper place?			
36. Do you accept at least partial blame for failures?			

SUPPLEMENTAL ACTIVITIES

For each time you marked "Never," give yourself 1 point. For each time you marked "Sometimes," give yourself 3 points. For each time you marked "Always," give yourself 5 points.

If your score is:

144-180: Hooray for you! Your self-concept is strong and helps you deal with the pressures and tensions of everyday life! You're self-reliant and have the attitude you need to go far.

72-144: Your self-concept includes both positive and negative aspects. You may want to think through your answers one more time. Were you really honest with yourself? Do you see any trends that disturb you? Any areas of strength? You may want to choose two or three areas to concentrate on improving while you are in school. Give yourself a pat on the back! You're on the right track!

36-72: Your self-concept needs some repair. Look at yourself in the mirror and think about all the wonderful things you have to offer. Take time out every day to pamper yourself just a little. If you feel unable to control some of the aspects of your life, you may want to consider talking with a school counselor.

INSTRUCTOR'S SECTION

SELF-ANALYSIS
Continued

SUPPLEMENTAL ACTIVITIES

INSTRUCTOR'S SECTION

- None required

RESOURCES

- Pencil or pen
- Values worksheet

TOOLS AND MATERIALS

Complete a values worksheet by choosing items that you value and answering short questions.

CHALLENGE

Values worksheets will be evaluated on their neatness and completeness.

EVALUATION

SUPPLEMENTAL ACTIVITIES

Rate What You Value

1. Place a "+" beside ten items below that you value most highly.

Excitement
Inner peace
Ability to make free decisions
World peace
Business or professional success
Comfort and pleasure
Being successful
A religious life
Close family ties
Creativity
Humor
Courage
Great personal wealth
Plenty of free time
Problem-solving ability
Caring for others
Freedom of speech
Fun
Justice for all people
Close friendships
Sense of self-worth
Personal fame
Financial security
Love
Equality for all people
Approval from others
College degree
Rewards for honest efforts
Clear personal goals
Elimination of poverty
An effective world government
Flexibility
Leadership
Loyalty from others
Sense of community with others
Beauty
Preserving nature
Pleasing surroundings
Health

INSTRUCTOR'S SECTION

VALUES

SUPPLEMENTAL ACTIVITIES

2. Review the list, placing an "O" by the ten items that you value least.

3. Of your ten most highly valued items, choose three and underline them.

4. Is there anything you think should be added to the list? Add only those that you feel are as important as the three you underlined.

INSTRUCTOR'S SECTION

VALUES
Continued

PRETEST

1. TSA stands for:

   a. Technology Society Association
   b. Technology Service Administration
   c. Technology Student Association
   d. Teacher Student Association

2. TSA has activities at what level?

   a. state
   b. national
   c. local
   d. all of the above

3. A conference that provides training for TSA members to expand leadership opportunities:

   a. world-wide annual conference
   b. TSA Leadership Conferences
   c. semi-annual workshops
   d. TSA video teleconferences

4. Technology and leadership activities which you create and compete in using the knowledge you gained from technology education classes:

   a. group events
   b. individual events
   c. contests
   d. competitive events

INSTRUCTOR'S SECTION

INTRODUCTION TO TSA DESIGN BRIEF PRETEST

PRETEST

5. Becoming involved in state and national TSA activities gives you the opportunity to:

   a. meet famous people
   b. miss school
   c. travel
   d. make money

6. The TSA national conference is planned and lead by:

   a. TSA national officers
   b. school administrators
   c. advisors and teachers
   d. TSA board of directors

7. Local TSA chapters may be involved in:

   a. athletic competitions
   b. community service projects
   c. international travel
   d. all of the above

8. TSA helps students learn about careers in:

   a. college
   b. teaching
   c. technology and industry
   d. high-paying professions

INSTRUCTOR'S SECTION

INTRODUCTION TO TSA
DESIGN BRIEF
PRETEST
Continued

PRETEST

9. Winners from the state competitive events advance to the:

   a. regional competitions
   b. district competitions
   c. state competitions
   d. national competitions

10. TSA is an organization for students who are presently enrolled in or have taken:

   a. seventh grade
   b. eighth grade
   c. technology education classes
   d. Introduction to TSA Design Brief

11. Technology education classes have two goals; one is to develop individual potential the other is to help students:

   a. gain acceptance in a club or organization
   b. make better grades in technology education courses
   c. obtain high-paying jobs
   d. gain an understanding of technology and industry

INSTRUCTOR'S SECTION

INTRODUCTION TO TSA DESIGN BRIEF
PRETEST
Continued

PRETEST

12. The category of competitive events that deals with how technology interacts with society is:

    a. synergetic technology
    b. manufacturing technology
    c. communications technology
    d. transportation technology

13. Students who enjoy working with people would be interested in competitive events that use:

    a. an advisor-centered approach
    b. a leadership approach
    c. a team approach
    d. an individual approach

14. The category of events in the competitive events that deals with relating information is:

    a. communications technology
    b. leadership
    c. manufacturing
    d. transportation

15. The most important benefit of TSA is:

    a. better grades
    b. belonging to a club
    c. your personal growth
    d. making friends

INSTRUCTOR'S SECTION

INTRODUCTION TO TSA
DESIGN BRIEF
PRETEST
Continued

POSTTEST

16. Technology education classes have two goals; one is to develop individual potential the other is to help students:

    a. gain acceptance in a club or organization
    b. make better grades in technology education courses
    c. obtain high-paying jobs
    d. gain an understanding of technology and industry

17. Local TSA chapters may be involved in:

    a. field trips
    b. community service projects
    c. educational activities
    d. all of the above

18. TSA helps students learn about careers in:

    a. college
    b. teaching
    c. technology and industry
    d. high-paying professions

19. The most important benefit of TSA is:

    a. better grades
    b. belonging to a club
    c. your personal growth
    d. making friends

INSTRUCTOR'S SECTION

INTRODUCTION TO TSA DESIGN BRIEF POSTTEST

POSTTEST

20. TSA has activities at what level?

    a. state
    b. national
    c. local
    d. all of the above

21. A conference that provides training for TSA members to expand leadership opportunities:

    a. world-wide annual conference
    b. TSA Leadership Conferences
    c. semi-annual workshops
    d. TSA video teleconferences

22. Students who enjoy working with people would be interested in competitive events that use:

    a. an advisor-centered approach
    b. a leadership approach
    c. a team approach
    d. an individual approach

23. TSA is an organization for students who are presently enrolled in or have taken:

    a. seventh grade
    b. eighth grade
    c. technology education classes
    d. Introduction to TSA Design Brief

INSTRUCTOR'S SECTION

INTRODUCTION TO TSA DESIGN BRIEF
POSTTEST
Continued

POSTTEST

24. Technology and leadership activities which you create and compete in using the knowledge you gained from technology education classes:

    a. group events
    b. individual events
    c. contests
    d. competitive events

25. TSA stands for:

    a. Technology Society Association
    b. Technology Service Administration
    c. Technology Student Association
    d. Teacher Student Association

26. Becoming involved in state and national TSA activities gives you the opportunity to:

    a. meet famous people
    b. miss school
    c. travel
    d. make money

27. The TSA national conference is planned and lead by:

    a. TSA national officers
    b. school administrators
    c. advisors and teachers
    d. TSA board of directors

INSTRUCTOR'S SECTION

INTRODUCTION TO TSA
DESIGN BRIEF
POSTTEST
Continued

POSTTEST

28. Winners from the state competitive events advance to the:

    a. regional competitions
    b. district competitions
    c. state competitions
    d. national competitions

29. The category of events in the competitive events that deals with relating information is:

    a. communications technology
    b. leadership
    c. manufacturing
    d. transportation

30. The category of competitive events that deals with how technology interacts with society is:

    a. synergetic technology
    b. manufacturing technology
    c. communications technology
    d. transportation technology

INSTRUCTOR'S SECTION

INTRODUCTION TO TSA
DESIGN BRIEF
POSTTEST
Continued

POSTTEST

31. robotics
32. inovation
33. skematic
34. folio
35. sinergetic
36. catagory
37. prototype

INSTRUCTOR'S SECTION

SPELLING TEST

TEST ANSWERS

INSTRUCTOR'S SECTION

PRETEST ANSWERS

1. c
2. d
3. b
4. d
5. c
6. a
7. b
8. c
9. d
10. c
11. d
12. a
13. c
14. a
15. c

POSTTEST ANSWERS

16. d
17. b
18. c
19. c
20. d
21. b
22. c
23. c
24. d
25. c
26. c
27. a
28. d
29. a
30. a

TEST ANSWERS

31. a
32. b
33. b
34. a
35. b
36. b
37. a

All Supplemental Activities and Challenges should be evaluated for completeness and effort.

INSTRUCTOR'S SECTION

SPELLING TEST ANSWERS

SUPPLEMENTAL ACTIVITIES AND CHALLENGES

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INSTRUCTOR'S SECTION

TECHNOLOGY EDUCATION

TSA LEADERSHIP DESIGN BRIEFS

TE3108

DESIGN BRIEF 1:
INTRODUCTION TO TSA

TECHNOLOGY STUDENT ASSOCIATION

Developed by the
Curriculum and Instructional Materials Center
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TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

In this Design Brief you will complete the following activities:

1. Complete Pretest
2. Watch TSA Video
3. Read *Assignments to Turn In*
4. Read *Goal*
5. Read *Objectives*
6. Read *Words You Should Know* and *Introduction*
7. Complete an interest inventory
8. Complete a personal interest assessment form
9. Complete a TSA interest form
10. Complete Posttest

SUMMARY OF ACTIVITIES

Reading Comprehension Skills
- Gain factual information
- React to written material

Functional Reading Skills
- Follow written instructions

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

PRETEST

INSTRUCTIONS

You will need a computer scan sheet or card to record your answers to the following Pretest. Be sure to write your name, the title of the Design Brief, the date, and the class period on the computer scan sheet or card using a #2 pencil. Use rows 1-15 to record the answers to the Pretest. If your answers will be hand-scored, use a blank sheet of notebook paper to record your answers and number your answers 1-15.

Get Pretest Questions from your instructor.

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

ASSIGNMENTS TO TURN IN

When you have completed this Design Brief, you should give the following items to your instructor for evaluation:

1. Computer score card/sheet with answers to:
   a. Pretest
   b. Posttest
2. Interest inventory score card/sheet.
3. Personal interest assessment form.
4. TSA interest form.

GOAL

The Introduction to TSA Brief will help you learn what TSA has to offer you at the local, state, and national levels.

OBJECTIVES

In this Design Brief, you will complete the following activities:

1. Complete an interest inventory.
2. Complete a personal interest assessment form.
3. Complete a TSA interest form.
4. Complete the Posttest over the Introduction to TSA.

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

INTRODUCTION

The Technology Student Association (TSA) is a national organization for students who are prosently enrolled in, or have completed, technology education classes.

Technology education classes have a two-fold mission.

- To help students gain an understanding of all aspects of technology and industry.
- To assist in the development of individual potential.

TSA fosters this mission by developing leadership abilities and instilling a sense of pride in one's work.

TSA also promotes high standards of technical ability, scholarship, and safety.

TSA is an organization that values the unique capabilities of students and offers many opportunities for personal growth and success.

TSA has activities at the local, state, and national level.

By being involved in your local chapter you can participate in field trips, community service projects, learn about new technology, become a chapter officer and much more. State and national activities give you the opportunity to travel, meet new people, and share your ideas and knowledge in technology.

TECHNOLOGY EDUCATION
LEADERSHIP DESIGN BRIEFS

TSA

INTRODUCTION
Continued

Learn more about the opportunities TSA offers when you complete the interest inventory.

Competitive events offer you the opportunity to put your ideas and creativity into activities involving technology and industry. Competitive event competitions are held at the local, state, and national level. There are many categories of competitive events under the areas of communications, construction, manufacturing, transportation — power/energy, leadership, and synergetic technology.

Learn more about competitive events when you complete the interest inventory.

WORDS YOU SHOULD KNOW

Category	a group of related items
Folio	sheets of paper placed together
Innovation	something new or different
Prototype	a working model
Robotics	technology that uses computer-controlled robots to perform specific jobs
Schematic	a drawing
Synergetic	working together
TSA	Technology Student Association

TECHNOLOGY EDUCATION
LEADERSHIP DESIGN BRIEFS

TSA

Complete an interest inventory.

OBJECTIVE 1

- Interest inventory
- Pen or pencil
- Computer scorecard or blank sheet of notebook paper

TOOLS AND MATERIALS

Complete an interest inventory. Use a computer scorecard to record your answers. Mark (1) for Seldom and (2) for Often. If using a blank sheet of paper, number the lines from 1–45 and write Seldom or Often by the line number. When answering the questions be honest. Don't be afraid to answer "often" because you feel you do not know much about the topic in the question. TSA will help you learn about technology and improve your skills in different areas.

CHALLENGE

Interest inventories will be evaluated on their completeness.

EVALUATION

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

INTEREST INVENTORY

Answer all of the questions below. Read each question carefully and think about your response before marking it down.

		Seldom	Often
1.	Do you enjoy being involved in your school and/or extracurricular activities?	____	____
2.	Are you a reliable and dependable person?	____	____
3.	Do you enjoy travelling?	____	____
4.	Do you want to learn more about technology and how it affects your life?	____	____
5.	Do you enjoy sharing your interests with others?	____	____
6.	Do you like to draw?	____	____
7.	Do you like working with computers?	____	____
8.	Are you interested in robotics?	____	____
9.	Do you get satisfaction from helping people?	____	____
10.	Do you enjoy planning/organizing events such as parties?	____	____

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

		Seldom	Often
11.	Do you enjoy working toward a goal and accomplishing that goal?	____	____
12.	Are you interested in aircraft?	____	____
13.	Are you interested in advertising?	____	____
14.	Would you enjoy participation in the development of electrical and electronic products?	____	____
15.	Do you recall information easily?	____	____
16.	Are you interested in what the future of technology will bring?	____	____
17.	Would you enjoy being involved in developing a video?	____	____
18.	Do your friends follow your suggestions?	____	____
19.	Do you enjoy talking about activities that interest you?	____	____
20.	Are you good at spelling and grammar?	____	____
21.	Would you like to build a model bridge and determine its strength?	____	____
22.	Would you like to participate in a racing car team?	____	____

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

		Seldom	Often
23.	Are you interested in the use of technology to solve problems?	____	____
24.	Do you like to be involved in meetings?	____	____
25.	Do you enjoy having people listen to your ideas?	____	____
26.	Do you like to be creative?	____	____
27.	Do you like to be recognized for your hard work and dedication?	____	____
28.	Do you enjoy working in a team to create a solution to a problem?	____	____
29.	Are you interested in drafting?	____	____
30.	Would you like to develop your ability to speak in front of others?	____	____
31.	Are you interested in constructing buildings?	____	____
32.	Are you familiar with or interested in how buildings are constructed?	____	____
33.	Do you enjoy being a part of a club or organization?	____	____
34.	Do you enjoy taking responsibility and being in charge?	____	____
35.	Are you interested in car design and car construction?	____	____

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

		Seldom	Often
36.	Do you enjoy writing?	____	____
37.	Do you enjoy meeting new people and making new friends?	____	____
38.	Do you enjoy finding out about the latest ideas in technology?	____	____
39.	Do you enjoy competitions and being recognized for your work?	____	____
40.	Do you enjoy putting together information and creating visual displays?	____	____
41.	Do you enjoy building models?	____	____
42.	Are you interested in how products are made?	____	____
43.	Would you like to be a contestant on a game show?	____	____
44.	Do you enjoy being a member of a team?	____	____
45.	Do you enjoy working with a partner?	____	____

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

ANSWER KEY

To find out about activities and events TSA has to offer that might interest you, follow the directions given below.

Use the chart on the next two pages to find activities and events that interest you. First, look at the question number in the first column and go over to the column that you marked (Seldom or Often). Second, read the page number or numbers under that column. If there are no page numbers under the column you marked, go on to the next question.

Question Number	If you marked **Seldom** turn to:	If you marked **Often** turn to:
1		pages 14-15
2	pages 14-15	page 16
3	pages 14-15	page 17
4		page 14-15
5	pages 14-15	page 17
6	page 42	pages 27,29
7	page 39	page 25
8	page 31	page 18
9		pages 14-15
10	pages 14-15	page 16
11	pages 14-15	page 17
12	page 32	page 36
13	page 33	page 27
14	page 41	page 37
15	page 19	page 42
16	page 27	page 34
17	page 32	page 28
18	pages 14-15	page 16
19		pages 14-15
20	page 36	page 30
21	page 23	page 33
22	page 28	page 38

Question Number	If you marked Seldom turn to:	If you marked Often turn to:
23		pages 18-24
24	page 34	page 39
25	page 35	pages 40,42
26		pages 25-30
27	pages 14-15	page 16
28	page 29	pages 19,22,23
29	page 40	pages 25-26
30	page 26	pages 40,42
31	page 37	page 31
32	page 38	page 32
33		pages 14-15
34	pages 14-15	page 16
35	page 31	page 35
36	page 18	page 30
37		pages 14-15,17
38		page 24
39	pages 14-15	page 17
40	page 20	page 41
41	page 24	pages 31,33,36-38
42	page 22	pages 34,35
43	page 25	page 20
44	page 30	pages 18-20,31,38,39
45	page 21	pages 22,32,33

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

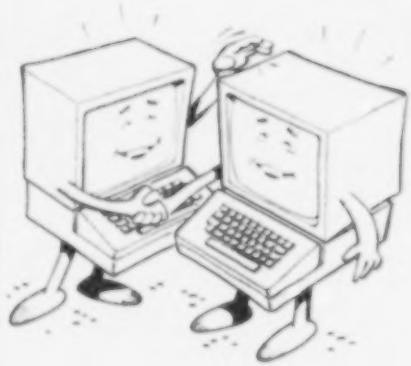
TSA

LOCAL TSA CHAPTER

Local TSA Chapters offer many exciting opportunities for members. The extent that you become involved in your local chapter depends on YOU. Activities that you are really interested in may inspire you to become a committee chairperson. To join your local TSA, you don't have to jump in head first. Talk to your TSA advisor and attend chapter meetings. Find out more about the benefits of TSA. Some of the activities local chapters may be involved in are listed below.

- Taking field trips to local industries involved in technology
- Fund-raising activities such as concessions, sales, or services
- Banquets, picnics, or receptions
- Public speaking engagements
- Chapter newsletters and promotional activities
- Local TSA competitive event competitions
- Inviting guest speakers to talk about different topics in technology at chapter meetings

INTEREST AREAS



TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

INTEREST AREAS

- Community service activities such as the adopt-a-highway program; charitable organization donations; seminars educating people about health, voting, highway safety, or drug/substance abuse, beautification projects; or a number of other possible community service activities that TSA members believe are important
- Learning more about technology and how it affects society and the environment
- Making friends who have an interest in technology
- Giving TSA members the opportunity to become leaders in their local TSA chapters

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

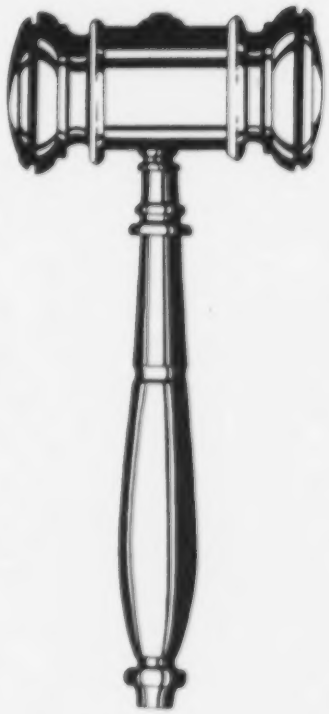
TSA

TSA CHAPTER OFFICER

TSA chapter officers are the leaders of their local TSA chapters. By becoming a TSA chapter officer you will develop your leadership abilities. To be a TSA officer you must be willing to devote time and energy into making your local chapter a success. Leadership is not something people are "just born with;" leaders must work on developing their skills. Some of the responsibilities of TSA chapter officers are listed below.

- Be present at all TSA chapter meetings
- Conduct appropriate opening and closing ceremonies
- Speak at civic clubs, banquets, school assemblies, and other functions
- Be familiar with the TSA organization including policies and procedures
- Prepare speeches for both TSA members and the public
- Conduct meetings and TSA conferences
- Participate in officer training sessions
- Represent the TSA organization to the media

INTEREST AREAS



TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

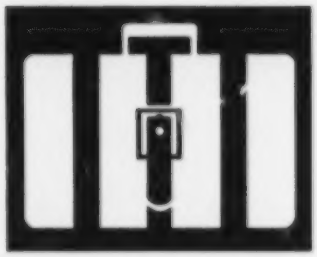
TSA

TSA STATE AND NATIONAL EVENTS

By being a member of your local TSA chapter, you may have the opportunity to become involved in state and national events. To participate in state and national events, you must be dedicated and willing to put effort into your TSA activities. Some of the activities at the state and national level are listed below.

- TSA Leadership Conferences offer members leadership opportunities and training
- Competitive events competitions; the winners from the competitive events at state conferences advance to the national competition
- The TSA National Conference offers members leadership training and also the chance to achieve recognition through the national competitive event competitions

INTEREST AREAS



TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

INTEREST AREAS

SYNERGETIC TECHNOLOGY

The competitive events in this area deal with technology and industry in a broad sense. How technology interacts with society, what problems it creates, and what solutions can solve those problems are some of the topics under categories in synergetic technology.

CONTROL TECHNOLOGY

Students in the control technology event use a team (3 students) approach to provide a computer-controlled-model solution to a problem. The problem is given to students and they have a stated time to come up with a solution. Teams have 15 minutes to come up with solutions. Teamwork is important in this event because teams have a maximum of 2 ½ hours to construct, test, program, document their solution, and revise their models. The criteria for this event are design, functionality, teamwork, documentation, and originality.

If this event interests you, look at other events under the category of SYNERGETIC TECHNOLOGY. Other events that may interest you are events that use a team approach such as Architectural Model (page 31), Chapter Team (page 39), and Radio Control Transportation (page 38).

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

TECHNOLOGICAL SYSTEMS

Students in the technological systems event compete in teams of two to four students. In this event, the team must enter a model and documentation of their solution to a stated problem concerning a given technological system. The problem concerning the technological system may be from areas such as communication, transportation, construction, and manufacturing. The problem will change each year. Teams bring their model and documentation to the event. Teams chosen as finalists are given 20 minutes to demonstrate their solution.

If this event interests you, look at other events under the category of SYNERGETIC TECHNOLOGY. Other events that may interest you are events that use a team approach such as Architectural Model (page 31), Chapter Team (page 39), and Radio Control Transportation (page 38).

INTEREST AREAS

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

INTEREST AREAS

TECHNOLOGY BOWL

The technology bowl gives TSA chapter members the opportunity to demonstrate their knowledge of TSA/leadership skills and the systems of technology. The team consists of three members.

The technology bowl is divided into two parts. The first part of the competition is a written test. The test is given to all students entering the event at the same time and they are given one hour to complete the test. Teams that score in the top ten in the written test advance to the oral competition.

The oral competition consists of questions which are given to the teams. Once a member of a team "buzzes in," the team member has five seconds to answer the question without help from the other team members.

If this event interests you, look at other events under the category of SYNERGETIC TECHNOLOGY. Other events that may interest you are events that use a team approach such as Architectural Model (page 31), Chapter Team (page 39), and Radio Control Transportation (page 38).

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

TECHNOLOGY CHALLENGE

The technology challenge event gives students the opportunity to develop a solution to a problem in technology. This event is an individual event. Students must design and construct a machine powered by plastic disposable cylinders (syringes) that lifts a ping pong ball as high as possible.

The student designs and assembles the base and machine parts from a variety of materials such as wood, plastics, metals and composite materials. The power to initiate the movement of the machine to pick up the ping pong ball must come from the syringes.

The machine is limited to six syringes for control and movement. The syringes must be plastic, disposable 30 cc syringes. The student constructs the machine and takes it to the event. The student operates the machine twice at the event, with the highest lift being recorded.

If this event interests you, look at other events under the category of SYNERGETIC TECHNOLOGY. Other events that may interest you are events that consist of constructing things such as Aerospace Technology (page 36), Electricity/ Electronics (page 37), Manufacturing Prototype (page 34), Radio Control Transportation (page 38), Research and Design (page 35), and Structural Engineering (page 33).

INTEREST AREAS

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

INTEREST AREAS

TECHNOLOGY PROBLEM SOLVING

In the technology problem solving event, teams consisting of two members are required to provide a solution to a problem within a specified time frame. All of the work for the solution must be done at the event. All materials and tools will be provided.

The event problems may be from areas such as transportation, communication, production, construction, societal/future solutions, or applications of technology. The criteria for the event are design, function, teamwork, and originality.

If this event interests you, look at other events under the category of SYNERGETIC TECHNOLOGY. Other events that may interest you are events where you are working with a partner such as Construction Technology (page 32) and Structural Engineering (page 33).

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

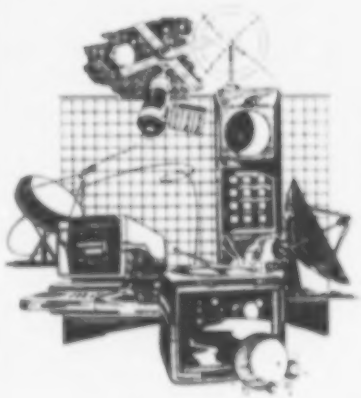
TSA

TECHNOLOGY PROCESS DISPLAY

The technology process display is a chapter effort. Chapters entering the technology process display construct and display an industrial or technological process which they have researched. The exhibit size consists of a 4-foot cube. The exhibit must show a technological or industrial operation. Chapters are encouraged to research applications of new technology.

If this event interests you, look at other events under the category of SYNERGETIC TECHNOLOGY. Other events that may interest you are events that use a team approach such as Architectural Model (page 31), Chapter Team (page 39), and Radio Control Transportation (page 38).

INTEREST AREAS



TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

TECHNOLOGY RESEARCH

Students in the technology research event research and write a paper on a technological innovation topic. The paper is limited to five pages, not including materials placed in the appendix and the bibliography. The topic of the technology research paper may be related to any aspect of technological innovation.

If this event interests you, look at other events under the category of SYNERGETIC TECHNOLOGY. Other events that may interest you are events that use research and writing such as Technical Report Writing (page 30) and Prepared Speech (page 42).

INTEREST AREAS

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

INTEREST AREAS

COMMUNICATIONS TECHNOLOGY

Competitive events in the category of communications technology deal with communicating information about technology/industry. Events in this category deal with computer technology, using visual and photographic means to communicate messages, and writing.

COMPUTER-AIDED DESIGN/DRAFTING (CADD)

Students in the CADD competitive event demonstrate their abilities with CADD. The event tests in a live setting the computer-aided design/drafting skills of students as they apply to mechanical/architectural design and drafting.

If this event interests you, look at other events under the category of COMMUNICATIONS TECHNOLOGY. Other events that may interest you are events that use computer skills such as Control Technology (page 18).

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

ENGINEERING GRAPHIC ANALYSIS

Students in the engineering graphic analysis event demonstrate their ability to analyze engineering specifications and use tools and equipment to come up with solutions to engineering graphic problems. This event has two parts.

The first part of the event is a written test over engineering graphic analysis. Finalists from the written test portion advance to the problem solving event. Students are given one hour to solve an engineering graphic problem using appropriate tools and equipment.

If this event interests you, look at other events under the category of COMMUNICATIONS TECHNOLOGY. Other events that may interest you are events that use drawing skills such as Architectural Model (page 31).

INTEREST AREAS

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

GRAPHIC DESIGN

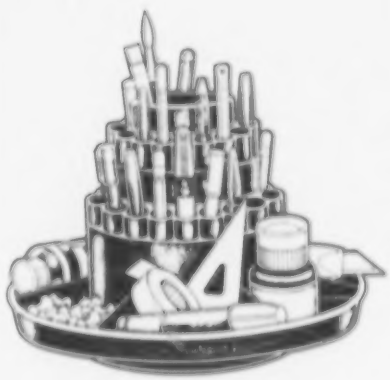
Students in the graphic design event demonstrate their ability to communicate design and layout skills. Students must develop a design which depicts the theme for TSA's next National Conference.

The design is to be one color with an option of two colors maximum. The design cannot exceed a size of 20 cm (8 inches) by 25 cm (10 inches). The design must include the following information:

- TSA National Conference
- date and place of conference
- theme of the conference

If this event interests you, look at other events under the category of COMMUNICATIONS TECHNOLOGY.

INTEREST AREAS



TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

PROMOTIONAL COMMUNICATIONS

Students in the promotional communications event demonstrate their ability to communicate ideas through video. In this event students prepare a video promoting TSA.

This event can be an individual or group project. The video must consist of a 30-second public service announcement and a 3- to 5-minute video promoting the Technology Student Association.

If this event interests you, look at other events under the category of COMMUNICATIONS TECHNOLOGY.

INTEREST AREAS

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

SAFETY ILLUSTRATION

Students in the safety illustration event demonstrate their ability to recognize safety needs and communicate safety messages in visual form. This event is designed to promote TSA members' attention to safety and safety practices. Safety is a critical issue for TSA members because they often work in a lab or around machines. The illustration for the safety promotion must be a two-dimensional (flat) design produced on 11 x 17 posterboard, illustration board, cardboard, or foamboard.

If this event interests you, look at other events under the category of COMMUNICATIONS TECHNOLOGY. Safety practices MUST be followed for all events, so this is an event that relates to all competitive events and areas of technology/industry.

INTEREST AREAS

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

TECHNICAL REPORT WRITING

The technical report writing event gives students the opportunity to demonstrate their ability to read, analyze, and write a report over technical articles. Students in this event are given one hour to put together information from various technical articles into a report. Students may bring a dictionary and thesaurus to the competition.

If this event interests you, look at other events under the category of COMMUNICATIONS TECHNOLOGY. Other events that may interest you are events that use writing skills such as Technology Research (page 24).

INTEREST AREAS

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

INTEREST AREAS

CONSTRUCTION TECHNOLOGY

Events in the construction technology category deal with building construction. Topics such as architectural building and bridge building are covered in this category.

ARCHITECTURAL MODEL

Students in the architectural model event demonstrate their ability to plan, draw, and construct an architectural model to scale. This can be an individual or a group project. In this event students submit a floor plan and a three-dimensional model that accompanies the floor plan.

The type of architectural model to be submitted varies each year. Projects such as shopping centers, space stations, office buildings, etc. are possible projects. The model is designed and constructed and taken to the competitive event.

If this event interests you, look at other events under the category of CONSTRUCTION TECHNOLOGY. Other events that may interest you are events that use a team approach such as Control Technology (page 18), Technological Systems (page 19), Technology Bowl (page 20), Chapter Team (page 39), and Radio Control Transportation (page 38).

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

CONSTRUCTION TECHNOLOGY

Students in the construction technology event demonstrate their knowledge and skills in different areas of construction. This is a team event with two members per team. This event is broken into two parts.

The first part of this event is a written test. Teams that advance to the second part of the competition apply practical construction practices. The activities for the finalists vary from year to year.

If this event interests you, look at other events under the category of CONSTRUCTION TECHNOLOGY. Other events that may interest you are events where you work with a partner such as Technology Problem Solving (page 22).

INTEREST AREAS

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

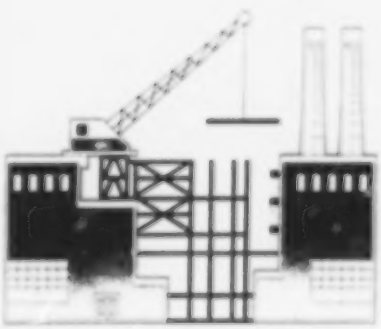
STRUCTURAL ENGINEERING

Students in the structural engineering event demonstrate their ability to build a bridge given the span and width specifications. This is a team event with two members per team.

Each team builds the bridge at the competition. Then, the bridge is tested by placing weight on it until it fails. All materials to build the bridge are provided at the competition.

If this event interests you, look at other events under the category of CONSTRUCTION TECHNOLOGY. Other events that may interest you are events where you work with a partner such as Technology Problem Solving (page 22).

INTEREST AREAS



TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

INTEREST AREAS

MANUFACTURING TECHNOLOGY

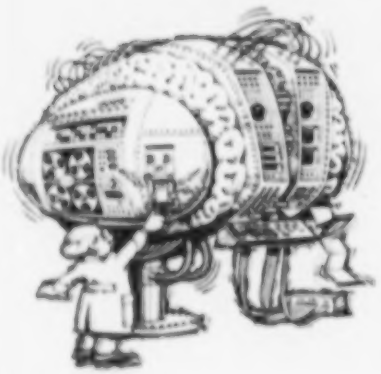
Events in this category deal with manufacturing as it relates to technology and industry.

MANUFACTURING PROTOTYPE

Students in the manufacturing prototype event demonstrate their ability to create products with innovative features. In this event students manufacture a prototype of a product and provide a description of how the product could be manufactured in a state-of-the-art American industry.

The prototype may use batteries but cannot include combustible engines or require flammable fuels or external AC power. The prototype is built and then taken to the event.

If this event interests you, look at other events under the category of MANUFACTURING TECHNOLOGY. Other events that may interest you are events that deal with aspects of technology innovation such as Control Technology (page 18) or Technology Research (page 24).



TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

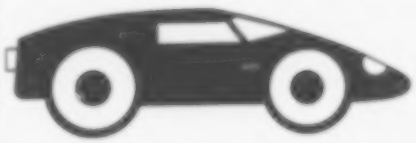
RESEARCH AND DESIGN (METRIC 500)

Students in the research and design event demonstrate their ability to design, draw, and build a product. In this event students design, draw, and build a CO_2-powered vehicle. This is an individual event. The vehicles are built and taken to the event.

CO_2 cartridges are provided at the event. Each entry must include a metric drawing of the completed vehicle. Entries are judged on design, speed, craftsmanship, and the drawing of the vehicle.

If this event interests you, look at other events under the category of MANUFACTURING TECHNOLOGY. Other events that may interest you are events that deal with designing moving objects such as Aerospace Technology (page 36) or Radio Control Transportation (page 38).

INTEREST AREAS



TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

INTEREST AREAS

TRANSPORTATION – POWER/ENERGY TECHNOLOGY

Events in this category deal with the technology of transportation or power/energy.

AEROSPACE TECHNOLOGY

Students in the aerospace technology event demonstrate their ability to design, sketch, and build a product that demonstrates the theory of flight. Students build a hand-launched model aircraft (metric glider). Students submit a folio (paper) including research on the principles of flight, the assembly instructions for the glider submitted, and a description of the launch techniques.

Sketches of the research and development procedures must also be included in the folio. Construction of the glider is done on-site. Each student is given three opportunities to launch the glider. The longest flight time is used for judging.

If this event interests you, look at other events under the category of TRANSPORTATION – POWER/ENERGY TECHNOLOGY. Other events that may interest you are events that deal with designing and building things such as Architectural Model (page 31), Structural Engineering (page 33), Manufacturing Prototype (page 34), or Research and Design (page 35).

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

ELECTRICITY/ELECTRONICS

Students in the electricity/electronics event demonstrate their ability to design, develop, and build an electrical/ electronics product. This may be an individual or group project.

Entries are brought to the event and must be accompanied by a schematic drawing and a one-page written description of the application of the product. The products are judged on complexity, ingenuity, and on the schematic and written description.

If this event interests you, look at other events under the category of TRANSPORTATION – POWER/ENERGY TECHNOLOGY. Other events that may interest you are events that deal with designing and building things such as Architectural Model (page 31), Structural Engineering (page 33), Manufacturing Prototype (page 34), or Research and Design (page 35).

INTEREST AREAS

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

RADIO CONTROL TRANSPORTATION

Students in the radio control transportation event work in a team to build, modify, operate and maintain a radio-controlled car. The competition is designed to promote teamwork and problem solving.

Each team is given points in the areas of racing, appearance (workmanship, painting, and detail), a short technical report, and modifications or changes made with student-made parts. Each team consists of three members. Each member races the car.

If this event interests you, look at other events under the category of TRANSPORTATION – POWER/ENERGY TECHNOLOGY. Other events that may interest you are events that deal with designing and building things such as Architectural Model (page 31), Structural Engineering (page 33), Manufacturing Prototype (page 34), or Research and Design (page 35).

INTEREST AREAS

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

INTEREST AREAS

LEADERSHIP

Events in this category deal with leadership skills. Areas such as public speaking are in this category.

CHAPTER TEAM

TSA chapters entering the Chapter Team competition are required to perform an opening and closing ceremony, including three items of business.

This event provides a means for students to demonstrate their understanding of parliamentary procedures relative to business meetings.

If this event interests you, some other events that you might want to look at are other events under the category of LEADERSHIP. Other events that may interest you are events that use a team approach such as Control Technology (page 18), Technological Systems (page 19), Technology Bowl (page 20), Chapter Team (page 39), and Radio Control Transportation (page 38).

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

EXTEMPORANEOUS SPEAKING

INTEREST AREAS

The extemporaneous speaking event gives students the opportunity to demonstrate their knowledge of and ability to communicate information about technology and TSA. In this event students give a 3- to 5-minute speech 15 minutes after having drawn a card on which the topic for the speech is written.

The student draws three cards and chooses one topic from the three cards. The student may bring reference material into the room and may also use note cards when giving the speech.

If this event interests you, look at other events under the category of LEADERSHIP.

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

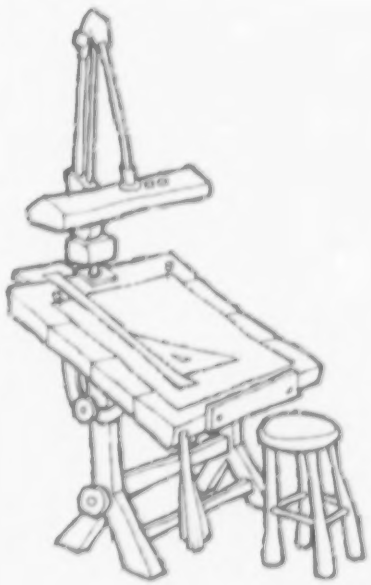
ILLUSTRATED PRESENTATION

In the illustrated presentation event students prepare and present for display materials that they have assembled and developed to promote career awareness, career opportunities, and educational opportunities through Technology Education.

The display includes a written report detailing the entire project. Finalists from the competition give an oral presentation of no more than 5 minutes.

If this event interests you, look at other events under the category of LEADERSHIP.

INTEREST AREAS



TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

PREPARED SPEECH

Students in the prepared speech event demonstrate their ability to communicate verbally to an audience. Students in this event deliver a 3- to 5- minute memorized speech.

The theme for the speech will be the published theme for the current year's conference. Students may use up to two 3 x 5 note cards. Deductions may be made if the note cards distract from the speech.

If this event interests you, look at other events under the category of LEADERSHIP.

INTEREST AREAS

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

Complete a personal interest assessment form.

OBJECTIVE 2

- Pen or pencil
- Personal interest assessment form
- Interest inventory score card/sheet

TOOLS AND MATERIALS

Complete the personal interest assessment form. Be honest in your answers. Refer to your answers on the interest inventory for help in completing the form.

CHALLENGE

Personal interest assessment form will be evaluated on neatness and completeness.

EVALUATION

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

PERSONAL INTEREST ASSESSMENT FORM

Answer each of the following questions below. Refer back to your interest inventory.

1. List three activities that local TSA chapters are involved in that would interest you.

   _____

   _____

   _____

2. Would you be interested in becoming a TSA chapter officer in the future?

   Yes _____ No _____

3. Would you be interested in becoming involved in TSA at the state or national level in the future? Why or why not?

   _____

   _____

   _____

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

PERSONAL INTEREST ASSESSMENT FORM

4. List three competitive events that interest you. Don't worry about "competing" at this point. Just write down what interests you.

_____

_____

_____

5. Would you like to participate in competitive events where you are a part of a team?

_____

6. What area do you find most interesting? (synergetics, communications, construction, manufacturing, transportation power/energy, or leadership)

_____

7. What area do you find least interesting?

_____

_____

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

OBJECTIVE 3

Complete a TSA interest form.

TOOLS AND MATERIALS

- Pen or pencil
- TSA interest form

CHALLENGE

Complete the TSA interest form. Read through the form and then fill out the required information. Think about all the opportunities that TSA has to offer you. If you are unsure about joining but are considering TSA, the TSA interest form is not "binding" but only indicates to your instructor that TSA may be for you. If you are sure that TSA is NOT the organization for you, please indicate so on the form.

EVALUATION

Your TSA interest form will be evaluated only on the basis of whether or not it was completed and turned in to the instructor.

If you complete Objective 3 with time left over, please ask your instructor for supplemental activities.

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

TSA INTEREST FORM

TECHNOLOGY STUDENT ASSOCIATION

NAME: _____

ADDRESS: _____

_____

HOUR ENROLLED IN TECHNOLOGY EDUCATION COURSE _____

I am interested in becoming involved in TSA and taking advantage of the opportunities that are waiting.

SIGNATURE _____

If you are sure that TSA is NOT for you, please indicate this on the line below.

_____

TSA offers many exciting opportunities for YOU! The benefits of being involved in TSA are numerous. Find out more about the benefits of TSA from your TSA advisor.

TECHNOLOGY EDUCATION LEADERSHIP DESIGN BRIEFS

TSA

Complete the Posttest over the Introduction to TSA.

OBJECTIVE 4

INSTRUCTIONS

For this objective you will complete the Introduction to TSA test.

You will need a computer score card or answer sheet to record your answers, and a #2 pencil. Use rows 16-30 on your computer score card to record your answers. If your answers will be hand-scored, use a blank sheet of paper to record your answers and number your answers 16-30.

SPELLING TEST INSTRUCTIONS

Use rows 31-37 on the test card. If the word is spelled correctly, mark (a) on the computer score sheet or card. If the word is spelled incorrectly, mark (b) on the test card. If your answers will be hand-scored, use a blank sheet of paper to record your answers and number your answers 31-37.

Get Posttest Questions from your instructor.

When you finish the Posttest, return the test form and the computer scan card or notebook paper to your instructor.

If you complete the Posttest with time left over, ask your instructor for supplemental activities.